

**ENVIS Centre
AVIAN ECOLOGY**

BUCEROS

ENVIS Newsletter

ENVIS Newsletter Vol. 16, No. 3 (2011)



Supported by Ministry of Environment & Forests, Government of India



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ENVIS

ENVIS (Environmental Information System) is a network of subject specific centres located in various institutions throughout India. The focal point of the present 78 ENVIS centres in India is at the Ministry of Environment and Forests, New Delhi, which further serves as the Regional Service Centre (RCS) for INFOTERRA, the global information network of the United Nations Environment Programme (UNEP) to cater to environment information needs in the South Asian sub-region. The primary objective of all ENVIS centres is to collect, collate, store and disseminate environment related information to various user groups, including researchers, policy planners and decision makers.

The ENVIS Centre at the Bombay Natural History Society was set up in June 1996 to serve as a source of information on Avian Ecology and Inland Wetlands.

ENVIS TEAM AT THE BNHS

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Cover : Grey Hypocolius *Hypocolius ampelinus* by Shradhha Rathi

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First database-derived data paper published in *ZooKeys* through ENVIS Centre, BNHS

ENVIS
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The BNHS's ENVIS team published the first-ever peer-reviewed paper derived directly from a biodiversity metadata document in *ZooKeys*, an international open-access journal, in November 2011, in collaboration with Global Biodiversity Information Facility (GBIF), Denmark and WII, Dehradun, India. The paper entitled, "Literature based species occurrence data of birds of North-East India" was produced after the team, led by Sujit Narwade, Scientist, BNHS, described a dataset of bird observations in eleven Indian states between 1909 and 2008, centred on the Himalayan biodiversity hotspot, which were derived from references in scholarly literature, mainly the *Journal of the BNHS*. This dataset was compiled using GBIF Integrated Publishing Toolkit (IPT) generating a manuscript that underwent a rigorous review process lasting nearly three months before being accepted for publication in *ZooKeys*. Lyubomir Penev, Managing Editor, *ZooKeys*, appreciated the team for being the first to bring out such a data paper from GBIF IPT and is hopeful that such data papers will provide incentives for those compiling data records about the occurrence of species to make their existence known to the scientific community, thus helping to increase knowledge about biodiversity and inform conservation measures. The paper can be downloaded from the following link - <http://www.pensoft.net/journals/zookeys/article/2002/abstract/>

Participation of ENVIS staff in 2nd Global Bird Watchers' Conference 2012

Following the huge success of the first such Conference in 2010, the Government of Gujarat in partnership with Federation of Indian Chambers of Commerce and Industry (FICCI), organised the 2nd Global Bird Watchers' Conference, 2012 from January 19-22, 2012, with which BNHS was involved as a knowledge partner. The Conference was attended by 360 delegates from 38 countries, including students, researchers, ornithologists, wildlife photographers, and amateur birdwatchers. A unique aspect of this Conference was a two-day field trip to various birding sites across Gujarat. The last day of



ENVIS staff promoting *BUCEROS* newsletter at the Conference (Photocredit: BNHS Library)

the Conference had some interesting talks by renowned scientists, conservationists, and photographers, interspersed with interactive sessions among the delegates where they shared their experiences of the previous two days of birding across Gujarat. ENVIS staff promoted *BUCEROS* newsletter at the event. This initiative taken by Government of Gujarat to promote avitourism was lauded by everyone. Such conferences will not only promote conservation of avifauna but also provide a common platform for researchers and conservationists to share their ideas with like-minded people worldwide.

***The Book of Indian Birds* is now available in Hindi**

The Department of Science and Technology (DST), Government of India-sponsored project of translating Dr. Sálim Ali's *The Book of Indian Birds*, the most popular book published by the BNHS, into Hindi has culminated successfully. The book titled *Bharat Ke Pakshi* can now be availed from Hornbill House. The translation has been done by Dr. Gayatri Ugra, Consultant Editor, BNHS. Being a comprehensive field guide for bird enthusiasts, *The Book of Indian Birds* set the benchmark right from the start. The book has a unique quality of catering to the interests of both a



scientist, as well as an amateur birdwatcher. Keeping this in view, as well as to promote nature conservation and education among the non English-speaking masses, BNHS took up this project of translation as well promotion of the book in Hindi, India's national language. 4,500 copies were printed and sent to the DST in the first quarter of 2012. Besides being an added feather to the cap of BNHS, this work is expected to help widen the outreach of Dr. Sálim Ali's unique bird book among Hindi-speaking bird enthusiasts and thereby make birdwatching even more popular and increase awareness regarding bird conservation, a wish expressed by the author in his original preface.

Online survey to record decline in sparrow population

The Bombay Natural History Society (BNHS) has launched an online survey inviting inputs from common people to document the decline in population and distribution of House Sparrow *Passer domesticus* all over the country. The project called Citizen Sparrow is supported by a number of nature and conservation organisations across India. Although it is among the most widely distributed birds in the world, the number of sparrows has dropped sharply in many places in the last several decades. In the survey, anyone with past or present information about the bird is encouraged to participate. In addition, it allows people to share their stories and observations about these birds. Participants can mark locations on a map and give simple information about their sparrow sightings from those locations, including sightings from past years and decades. With such information it is possible to compare population changes of sparrows in different places, and this is expected to point to particular threats or problems. Findings from the project are intended to feed into more detailed studies investigating causes of decline, and potential measures for the recovery of sparrow populations. All information collected through the two-month long survey (1 April - 31 May 2012) will remain in the public domain for anyone to access and use. To participate in this research, people have to log on to www.citizensparrow.in and enter the details asked for.



House Sparrow female
(Photocredit: Sujit Narwade)

For more details: http://zeenews.india.com/news/eco-news/online-survey-to-record-decline-in-sparrow-populat_767713.html

SAVE for law to keep vulture-killer at bay

Saving Asia's Vultures from Extinction (SAVE), a group of international experts, in its first meeting on saving these endangered raptors has strongly recommended legislations to stop the production of injectable human diclofenac in vials or ampoules larger than 3 ml. India, with its highest vulture populations so far, is to lead this initiative. The Oriental White-rumped Vulture *Gyps bengalensis* that was the most common bird of prey in the world during 1980s has suffered 99.9 percent decline, while two other species, Long-billed Vulture *Gyps indicus* and the Slender-billed Vulture *Gyps tenuirostris*, have declined by more than 97 percent since the early 1990s. One major recovery programme carried out by SAVE to protect the remaining vulture population has been through *ex-situ* breeding programmes, to protect the species outside of its natural habitat. As per the figures obtained, India can boast of the highest figures of vultures in South Asia, across the vulture breeding centres of Pinjore, Rajabhatkhawa and Rani forests in the states of Haryana, West Bengal, and Assam respectively. India is the only home to the Slender-billed and Long-billed Vulture, with the last surviving population of 47 and 83 respectively. The country also leads in the number of White-rumped Vultures with a total population of 141.

For more details: <http://dailypioneer.com/nation/47655-save-for-law-to-keep-vulture-killer-at-bay.html>

Artificial beaks to save hornbills from extinction

Fibre replicas of beaks of hornbills as part of a campaign to save the threatened species are proving to be the last hope to save rare hornbill species from imminent extinction in Arunachal Pradesh. Hornbills are the state birds of Arunachal Pradesh, but overhunting for *pudum*, traditional headgear of the Nyishi tribe, had threatened all five resident species with regional extinction at the end of the 20th century. Five hornbill species found in Arunachal Pradesh are the Great Pied Hornbill *Buceros bicornis*, Rufous-necked Hornbill *Aceros nipalensis*, White-throated Brown Hornbill *Ptilolaemus austeni*, Wreathed Hornbill *Aceros undulatus*, and Oriental Pied Hornbill *Anthracoceros albirostris*. For centuries the Nyishi tribe in Arunachal Pradesh has worn magnificent hornbill beaks as a part of *pudum*

NATIONAL
NEWS



Great Pied Hornbill
(Photocredit: Lip Kee Yap)



Nyishi tribesman wearing *pudum* with an artificial
hornbill beak (Photocredit: Sashanka Barbaruah/WTI)

considered a sign of manhood and tribal identity. Forest officials had almost given up hope of saving the birds, which were growing increasingly rare in the state. But in 2000, Chukhu Loma, then Deputy Chief Wildlife Warden, Arunachal Pradesh, came up with the idea of fabricating synthetic hornbill beaks and offering them to the Nyishi for use instead of real beaks. With the help of Wildlife Trust of India (WTI) and other organisations, he enlisted to manufacture and distribute the fiberglass beaks, which cost about fifteen rupees each. Though initially reluctant, Nyishi tribal elders gradually warmed to the idea of fabricated beaks, and some tribe members even got involved in manufacturing them. Soon after the synthetic beak distribution began, hornbill populations started to revive. Another significant move to conserve the species was the recent launch of Hornbill Nest Adoption Programme, a novel idea of Tana Tapi, Deputy Forest Officer, to conserve and protect hornbill nests in forest areas outside the Pakke Reserve. The programme will definitely extend protection and monitoring efforts outside the park with the involvement of the locals. Tapi stated that besides being a long-term wildlife conservation effort, it would help collect ecological information on the bird for research and planning.

For more details: http://zeenews.india.com/news/eco-news/artificial-beaks-save-hornbills-from-extinction_757177.html

Anand Agricultural University begins genetic studies on flamingos

The animal genetics and biotechnology laboratory at Anand Agricultural University (AAU) has initiated a genetic study on the Lesser Flamingo *Phoeniconaias minor* in Gujarat. The findings of this study will be compared with those conducted by European scientists on African Lesser Flamingo. Dr. David Harper, conservation biologist from University of Leicester, England and Dr. B.M. Parasharya, research scientist (ornithology) along with D.N. Rank, in association with AAU, have taken up the project to conduct this study. Dr. David Harper and his team of British and Italian scientists will also take part in the comparative study. Lesser Flamingos are distributed in the East African Rift while a small population lives in western Africa. The Asian population, which is the second largest of this species in the world, is mostly restricted to sites in western India. There is no scientific data to support or reject the hypothesis that flamingo populations keep fluctuating seasonally as well as annually, this is actually a sign of intra-continental migratory movement. The proposed study will provide data to prove or reject the hypothesis. Thus the comparative study will also throw light on the migratory movements of the species. The conclusion derived from the study will be helpful in conservation planning and identifying conservation priority areas for the species.

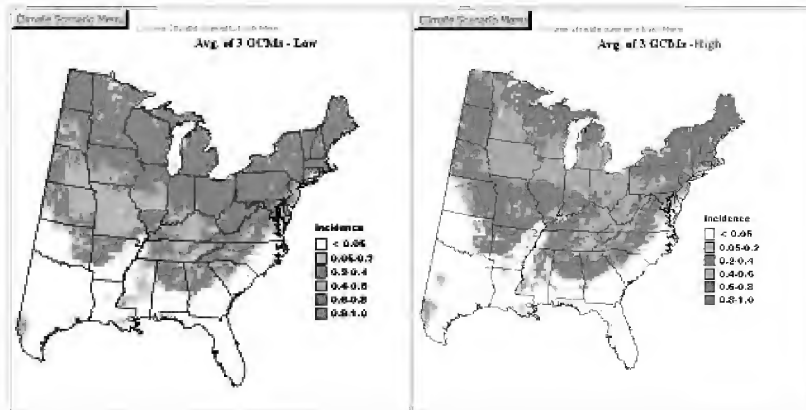


Lesser Flamingos of Gujarat
(Photocredit: Asif Khan)

For more details: http://articles.timesofindia.indiatimes.com/2012-02-04/ahmedabad/31024612_1_b-m-parasharya-genetic-study-species

Climate Change Bird Atlas

There is an interesting online database through the US Forest Service called the Climate Change Bird Atlas. It is based on another database, the Climate Change Tree Atlas and both are forecasts for eastern forests and birds. One leads to the other, since the fate of forests will affect the future of many species of birds. The current and projected distribution of 150 bird species based on statistical models is presented in the Climate Change Bird Atlas. The database is interactive and reasonably easy to figure out. Here one can project the future of the American Goldfinch



Carduelis tristis, the iconic state bird of three widely separated states - New Jersey, Iowa, and Washington. This Goldfinch is a common bird that is benefited greatly from living alongside human habitation, thriving at weedy roadsides and backyard bird feeders. But parsed against three climate change scenarios and two emissions scenarios, the future of the American Goldfinch gets shaky.

The map on the left shows current abundance of the American Goldfinch in the eastern US, with pink being the most abundant. The map on the right shows a forecast decline in abundance based on high climate change/emissions scenarios. On visiting the Climate Change Bird Atlas, one can play around with the outcomes for many eastern birds, compare projections, and run basic animations. The atlas is derived from a paper in the science journal *Ecography*. The paper is open access (DOI: 10.1111/j.1600-0587.2010.06803.x)

For more details: <http://motherjones.com/blue-marble/2012/02/climate-change-bird-atlas>

Tiny songbird Northern Wheatear traverses the world

Miniature tracking devices have revealed the epic 30,000 km migration of the diminutive Northern Wheatear *Oenanthe oenanthe*. These birds, which weigh just 25 gm, travel from sub-Saharan Africa to their Arctic breeding grounds. Scientists report that, when scaled by body size, this is one of the longest round-trip migratory journeys of any bird in the world. The species is of particular interest to scientists, because it has



Northern Wheatear fitted with a satellite transmitter
(Photocredit: BBC Nature library)

one of the largest ranges of any songbird in the world, with breeding grounds in the eastern Canadian Arctic, across Greenland, Eurasia, and into Alaska. Prior to this work though, it was not clear where the birds spent the winter. Heiko Schmaljohann, Institute of Avian Research, Germany, and his colleagues visited the wheatears' breeding grounds in Alaska and Canada, and fitted 46 birds with the satellite tracking devices. These data loggers recorded the bird's position twice a day for 90 days. Four trackers that the team managed to retrieve revealed that individual wheatears spent the winter in northern parts of sub-Saharan Africa. The Alaskan birds travelled almost 15,000 km each way, crossing Siberia and the Arabian Desert, and travelling, on average, 290 km per day. Although the Canadian birds travelled approximately 3,500 km, they had to cross the northern Atlantic Ocean which itself is a very big barrier for a small songbird, according to Dr. Schmaljohann.

For more details: <http://www.bbc.co.uk/nature/17027565>

Overfishing threatens the survival of seabirds

From gannets to seagulls, puffins to penguins, all seabirds suffer the same drop in birth rates when the supply of fish drops to less than a third of maximum capacity. These are the results of an international study on the relationships between predators and prey in seven ecosystems around the world. Based on nearly 450 cumulative years of observation, the research team compared the growth in fish supplies and the reproductive patterns of 14 species of coastal birds. These birds mainly feed on sardines, anchovies, herring, and prawns, all of which



Atlantic Puffin *Fratercula arctica*
(Photocredit: Sebastian Wasek/ Fotolia)

are victims of overfishing. Below the critical level of one third of the fish biomass, the birds and the stability of the entire ecosystem both come under threat. These studies also provide a reference level for the sustainable management of fisheries, so as to safeguard the bird population, which is often imperilled, and to maintain the health of marine environments. Previous studies had uncovered the relationships between the availability of food to birds and their reproductive rates, but this new international study has just made a monumental discovery. Coordinated by Dr. Philippe Cury, Scientist, L'Institut de recherche pour le développement (IRD) and published in the journal *Science*, the study identifies the level of a critical supply of fish below which the stability of the bird population is endangered. This study makes it plain that overfishing endangers the survival of higher-level predators such as birds. In fact, they are in direct competition with human fishermen, as both groups consume about 80 million tonnes of fish per year. Seabird populations are among the most endangered, owing to lack of food and also to climate change and the destruction of coastal habitats where, once again, they are in competition with humans for space along the water's edge.

For more details: <http://www.sciencedaily.com/releases/2012/02/120228123852.htm>

Winged beauties of Hingolghadh Nature Education Sanctuary, Gujarat

PHOTOFEATURE

Photographs and text: Bhasmang Mehta [Head (Q/C), Retrieve Laboratories, Gujarat]

I had heard the name Hingolghadh for the first time when I was an eighth grade student. These memories date back to the good old schooldays when every monsoon we used to participate in educational programmes held here. However, in those days because of some unknown fear, I always avoided attending these programmes. Years later, after I developed an interest in birdwatching and wildlife photography, I started exploring new forests. This was when I heard the name Hingolghadh again.

Hingolghadh was earlier know as “Motisari Vidi” and belonged to the erstwhile princely state of Jasdan. It was a hunting reserve for the royal family. The area was declared as a private forest in 1973 and wildlife sanctuary in 1980. Owing to its unique features, the task of management and development of the Sanctuary was handed over to GEER Foundation under the very efficient direction of Bharat Pathak, Chief Conservator of Forests (Wildlife), Gujarat.

The Hingolghadh Nature Education Sanctuary lies in a semi-arid part of Saurashtra region of Gujarat that is a typical scrub forest. The Sanctuary is spread across 654 hectares and showcases an amazing combination of scrub forest and grasslands. 53 species of trees, 31 species of grass, 152 species of herbs, and 43 species of climbers are found here. An astonishing 239 species of birds have been recorded, making it a bird-lover's haven.

Hingolghadh has a rich diversity of reptiles and mammals as well. The Indian Fox *Vulpes bengalensis*, Striped Hyena *Hyaena hyaena*, Indian Wolf *Canis lupus*, Nilgai *Boselaphus tragocamelus*, Common Palm Civet *Paradoxurus hermaphroditus*, and Blackbuck *Antelope cervicapra* are a few mammals found here. Atleast 11 species of snakes are found here, of which three are venomous. The best time to visit Hingolghadh is late monsoon, i.e., from August to early September.

Hingolghadh has always had many wildlife enthusiasts to protect its abundant wildlife. The erstwhile Highness of Jasdan, the late Shri Shivkumar Khacher, and his brother Shri Lavkumar Khacher are well known ornithologists and wildlife conservationists of Gujarat. They had initiated bird ringing programmes in Hingolghadh in association with the Bombay Natural History Society which were frequently held until a few years back. Shri V.D. Bala, Range Forest Officer, Gandhinagar division and a dedicated and enthusiastic conservationist, along with Navrang Nature Club, Hingolghadh, have started a wonderful initiative for conservation of the House Sparrow *Passer domesticus* of this region. He and his team have succeeded in convincing the farmers in the adjoining areas to spare a lane of crops for the sparrows to feed upon. I would also like to thank him for his support in providing data needed about Hingolghadh.



Hingolghadh Nature Education Sanctuary during monsoon (Photocredit: Bhavesh Trivedi)

Today after so many years, I feel that if I had not missed the chance to visit Hingolghadh as a schoolboy, I could have enjoyed the untouched beauty of the place better. With this photofeature, I would like to give you a glimpse of the winged beauties that Hingolghadh harbours.



Red-rumped Swallow *Hirundo daurica*
They breed here in large numbers, make their nest with sand and dust; spend most of their time flying, an estimated 90% of their time in the air.



Yellow-wattled Lapwing *Vanellus malabaricus*
They are found in drier parts and are not as dependent on the proximity of water as their cousins, the Red-wattled Lapwing.



Rufous Treepie *Dendrocitta vagabunda*
One is never far away from a treepie's call here; like other corvids, it is very adaptable, omnivorous and an opportunistic feeder.



Chestnut-bellied Sandgrouse *Pterocles exustus*
The birds are usually seen in parties of 3 to 5; their coloration on squatting is remarkably obliterative in their native environment.



Spotted Owlet *Athene brama*
These birds are largely nocturnal and crepuscular; they mostly use street lamps as hunting bases, hawking beetles and moths attracted to the light.



Indian Stone-curlew *Burhinus indicus*
Stone-curlews are resident species here; they are most active during dawn and dusk and spend most of the day in the shadows of scrub vegetation.



Pied Crested Cuckoo *Clamator jacobinus*

This was the first bird I saw on revisiting Hingolgadh years after my last trip as a student; they arrive in the beginning of monsoons, proclaiming its advent unmistakably with loud metallic calls.



Indian Pitta *Pitta brachyura*

A star attraction of Hingolgadh, they are summer visitors here; Hingolgadh is one of the best places to photograph them as they are so fearless that one can capture them even on a mobile phone camera.



Indian Roller *Coracias benghalensis*

Indian Rollers are seen in Hingolgadh in good numbers, particularly towards the end of monsoon, when the crops are ready in the fields; during this time they visit the fields to eat locusts.



Common Hoopoe *Upupa epops*

The bird runs about actively probing in loose soil with bill partly open like forceps; while doing this crest is furred to a point projecting behind, making the bird's head look like a pickaxe.



Indian Little Nightjar *Caprimulgus asiaticus*

A nocturnal bird, it spends the day camouflaged in the dry leaf litter on the forest floor or on branches in such a way that it seems to be a part of the branch; its calls are heard after dusk and at early dawn; it nests here in August.



Grey Francolin *Francolinus francolinus*

These are usually seen in pairs or family parties of 4 or 8; when alarmed, they run swiftly between bushes, surreptitiously squatting in ones and twos in different thickets, and take to wing only when hard pressed; at night they roost on tree branches.

BOMBAY NATURAL HISTORY SOCIETY

Founded in 1883 for the study of natural history, the Bombay Natural History Society (BNHS) is now one of the premier research and conservation organisations in the country. The Society publishes a journal, the *Journal of the Bombay Natural History Society*, devoted to natural history and also has a popular publication, *Hornbill*, for the layman. It has also published a number of books on wildlife and nature. Its library has a large collection of books and scientific journals on wildlife and the environment. The Society's invaluable collection of bird, mammal, reptile, amphibian and insect specimens has been recognised as a National Heritage Collection.

Membership of the Society is open to individuals and institutions within India and abroad. For more details, please write to:

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BUCEROS is an ENVIS (Environmental Information System) newsletter published thrice a year by the ENVIS Centre at the BNHS, sponsored by the Ministry of Environment and Forests, New Delhi.

The Centre collects, collates, stores and disseminates information on Avian Ecology.

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DISCLAIMER: The views expressed in this newsletter are not those of the editor's or of the BNHS.

Printed by Bro. Leo at St. Francis Industrial Training Institute, Borivli, Mumbai 400 103 and Published by the Honorary Secretary for the Bombay Natural History Society, Hornbill House, Shaheed Bhagat Singh Road, Mumbai 400 001.